



24 04 10:35p

robin chadwick

516-795-6820

p.2

IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Shu-Ping Yang et al.

Title: COMPOSITIONS FOR PROMOTING VAGINAL CELL PROLIFERATION AND MATURATION

Docket No.: 1443.065US1

Serial No.: 10/696,547

Filed: October 29, 2003

Due Date: N/A

Examiner: Unknown

Group Art Unit: 1615

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

☒ A return postcard.☒ An Information Disclosure Statement (2 pgs.), and Form 1449 (3 pgs.).

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By:

Atty: Robin A. Chadwick

Reg. No. 36,477

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25<sup>th</sup> day of June, 2004.

Judy Dent

Name

Signature

SCHWEGMAN, LUNDBERG, WOESSNER &amp; KLUTH, P.A.

(GENERAL)

BEST AVAILABLE COPY



SN 10/696,547

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Shu-Ping Yang et al.	Examiner:	Unknown
Serial No.:	10/696,547	Group Art Unit:	1615
Filed:	October 29, 2003	Docket:	1443.065US1
Title:	COMPOSITIONS FOR PROMOTING VAGINAL CELL PROLIFERATION AND MATURATION		

---

**INFORMATION DISCLOSURE STATEMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.



INFORMATION DISCLOSURE STATEMENT

Serial No :10/696,547

Filing Date: October 29, 2003

Title: COMPOSITIONS FOR PROMOTING VAGINAL CELL PROLIFERATION AND MATURATION

Page 2

Dkt: 1443.065US1

The present application is either a U.S. national patent application filed after June 30, 2003 or an international application that entered the national stage under 35 U.S.C. § 371 after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

SHU-PING YANG ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(516) 795-6820

Date June 25, 2004 By Robin A. Chadwick  
Robin A. Chadwick  
Reg. No. 36,477

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25<sup>th</sup> day of June, 2004.

Judy Dent  
Name

[Signature]  
Signature



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	10/696,547
Filing Date	October 29, 2003
First Named Inventor	Yang, Shu-Ping
Group Art Unit	1615
Examiner Name	Unknown

Sheet 1 of 3

Attorney Docket No: 1443.065US1

## US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-4,665,060	05/12/1987	Mardh, Per A., et al.	514	61	03/22/1983
	US-4,725,585	02/16/1988	Wenge, Per S., et al.	514	54	09/20/1985
	US-4,746,504	05/24/1988	Nimrod, Abraham, et al.	424	1.73	03/14/1986
	US-4,762,824	08/09/1988	Kallenius, Gunilla P., et al.	514	54	08/01/1986
	US-4,784,991	11/15/1988	Nimrod, Abraham, et al.	514	62	03/09/1987
	US-4,851,521	07/25/1989	della Valle, Francesco, et al.	536	55.1	07/02/1986
	US-4,855,128	08/08/1989	Lynch, Donald M., et al.	424	49	01/14/1988
	US-5,002,759	03/26/1991	Gaffar, Abdul, et al.	424	49	07/25/1989
	US-5,401,723	03/28/1995	Gaffar, Abdul, et al.	514	21	12/02/1992
	US-5,409,902	04/25/1995	Carson, Robert G., et al.	514	23	12/31/1991
	US-5,514,665	05/07/1996	Speert, David P., et al.	514	53	10/03/1994
	US-5,604,200	02/18/1997	Taylor-McCord, Darlene	514	8	05/02/1994
	US-5,650,432	07/22/1997	Walker, Edward B., et al.	514	456	03/24/1995
	US-5,700,458	12/23/1997	Mandeville, III, W. Harry, et al.	424	78.07	09/20/1996
	US-5,795,958	08/18/1998	Rao, Narasinga, et al.	530	331	06/10/1996
	US-5,840,322	11/24/1998	Weiss, Ervin, et al.	424	405	12/19/1996
	US-5,883,079	03/16/1999	Zopf, David A., et al.	514	25	05/12/1998
	US-6,051,701	04/18/2000	Cialdi, Gloria, et al.	536	123	07/30/1998
	US-6,063,773	05/16/2000	Anderson, Robert A., et al.	514	57	09/29/1995
	US-6,290,959	09/18/2001	Wu, Xue-Ru, et al.	424	150.1	10/24/1997
	US-6,417,173	07/09/2002	Roufa, Dikla, et al.	514	54	12/30/1999

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T <sup>2</sup>
	WO-00/45804	08/10/2000	Burns, James W., et al.	A61K	31/00	
	WO-02/24223	03/28/2002	Wessels, Michael R., et al.	A61K	39/00	

## OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		ALHO, ANNA M., et al., "The Hyaluronate Receptor Is Preferentially Expressed on Proliferating Epithelial Cells", <u>The Journal of Cell Biology</u> , 108(4), (April 1989), pp. 1557-1565	
		AN, YUEHUEI H., et al., "Concise review of mechanisms of bacterial adhesion to biomaterial surfaces", <u>Journal of Biomedical Materials Research</u> , 43(3), (Fall 1998), pp. 338-348	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/696,547
Filing Date	October 29, 2003
First Named Inventor	Yang, Shu-Ping
Group Art Unit	1615
Examiner Name	Unknown

Sheet 2 of 3

Attorney Docket No: 1443.065US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CHAFFIN, W L., et al., "Cell wall and secreted proteins of <i>Candida albicans</i> : identification, function, and expression", <u>Microbiology &amp; Molecular Biology Reviews</u> , 62(1), (March 1998), pp. 130-80	
		CHO, S Y., et al., "Opportunistic fungal infection among cancer patients", <u>American Journal of Clinical Pathology</u> , 72(4), (October 1979), pp. 617-21	
		CONNELL, H, et al., "Fimbriae-mediated adherence induces mucosal inflammation and bacterial clearance", In: <u>Toward anti-adhesion therapy for microbial diseases by Itzhak Kahane; Itzhak Ofek</u> , New York : Plenum Press,(1996), pp. 73-80	
		CUNNINGHAM, M W., "Pathogenesis of group A streptococcal infections", <u>Clinical Microbiology Reviews</u> , 13(3), (July 2000), pp. 470-511	
		GOODISON, S, et al., "CD44 cell adhesion molecules", <u>Molecular Pathology</u> , 52(4), (August 1999), pp. 189-96	
		HARDINGHAM, TIMOTHY E., et al., "Aggrecan, the Chondroitin Sulfate/Keratan Sulfate Proteoglycan from Cartilage", In: <u>Articular Cartilage and Osteoarthritis</u> , edited by Klaus E. Kuetner et al., New York : Raven Press,(1992), pp. 5-20	
		HARDINGHAM, TIMOTHY E., et al., "BBA Report. The specific interaction of hyaluronic acid with cartilage proteoglycans", <u>Biochimica et Biophysica Acta</u> , 279, (1972), pp. 401-405	
		HARDINGHAM, TIMOTHY E., et al., "Hyaluronic Acid in Cartilage and Proteoglycan Aggregation", <u>Biochemical Journal</u> , 139(3), (June 1974), pp. 565-581	
		HARDINGHAM, TIMOTHY E., "The role of link-protein in the structure of cartilage proteoglycan aggregates", <u>Biochemical Journal</u> , 177(1), (January 1, 1979), pp. 237-247	
		HEINEGARD, DICK, et al., "Aggregation of cartilage proteoglycans. 3. Characteristics of the proteins isolated from trypsin digests of aggregates", <u>Journal of Biological Chemistry</u> , 249(13), (July 10, 1974), pp. 4250-4256	
		HORNEF, M W., et al., "Bacterial strategies for overcoming host innate and adaptive immune responses", <u>Nature Immunology</u> , 3(11), (November 2002), pp. 1033-40	
		HULTGREN, S J., et al., "Bacterial adhesins and their assembly", In: <u>Escherichia coli and Salmonella : cellular and molecular biology/Frederick C Neidhardt; Roy Curtiss</u> , Washington, D.C. : ASM Press,(1996), pp. 2730-2756	
		KAHANE, ITZHAK, et al., "Toward anti-adhesion therapy for microbial diseases", New York : Plenum Press, (1996), pp. 73-80	
		LAURENT, C., et al., "Localization and quantity of hyaluronan in urogenital organs of male and female rats", <u>Cell Tissue Research</u> , 279, (1995), pp. 241-248	
		LEE, JANET Y., et al., "Hyaluronan: a multifunctional, megaDalton, stealth molecule", <u>Current Opinion in Cell Biology</u> , 12(5), (October 2000), pp. 581-586	
		LESLEY, JAYNE, et al., "Hyaluronan binding by cell surface CD44", <u>Journal of Biological Chemistry</u> , 275(35), (September, 2000), pp. 26967-26575	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

<b>Application Number</b>	10/696,547
<b>Filing Date</b>	October 29, 2003
<b>First Named Inventor</b>	Yang, Shu-Ping
<b>Group Art Unit</b>	1615
<b>Examiner Name</b>	Unknown

Sheet 3 of 3

Attorney Docket No: 1443.065US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		LUO, et al., "Modification of Natural Polymers: Hyaluronic Acid", in <u>Methods in Tissue Engineering</u> , Atala and Lanza (ed.), (2002), pp. 539 - 553	
		MAMMEN, MATHAI, et al., "Polyvalent Interactions in Biological Systems: Implications for Design and Use of Multivalent Ligands and Inhibitors", <u>Angewandte Chemie International Ed.</u> , 37, (1998), pp. 2754-2794	
		MOBASTERY, S, et al., "Bacterial antibiotic resistance", In: <u>Encyclopedia of life sciences/Nature Publishing Company</u> , London ; New York : Nature Pub. Group,(2002)	
		MUHLDOERFER, I, et al., "Escherichia coli in urinary tract infections", In: <u>Molecular medical microbiology / Max Sussman</u> , San Diego : Academic Press,(2002), pp. 1515-1540	
		OFEK, I, "Adhesins as lectins: specificity and role in infection", <u>Current Topics in Microbiology &amp; Immunology</u> , 151, (1990), pp. 91-113	
		OKADA, M., "Molecular design and syntheses of glycopolymers", <u>Progress in Polymer Science</u> , 26, (2001), pp. 67-104	
		PETRIN, D, et al., "Clinical and microbiological aspects of Trichomonas vaginalis", <u>Clinical Microbiology Reviews</u> , 11(2):, (April 1998), pp. 300-17	
		REID, G, "Probiotics for urogenital health", <u>Nutrition in Clinical Care</u> , 5(1), (January-February 2002), pp. 3-8	
		SACKMANN, ERICH, et al., "Cell adhesion as wetting transition?", <u>Chemphyschem</u> , 3(3), (March 12, 2002), pp. 262-269	
		SCHOOR, RICHARD A., et al., "Secretory IgA differentially promotes adherence of type 1-piliated Escherichia coli to immortalized vaginal epithelial cell lines", <u>Urology</u> , 57(3), (March 2001), pp. 556-561	
		SHARON, N, "Bacterial lectins, cell-cell recognition and infectious disease", <u>FEBS Letters</u> , 217(2), (June 15, 1987), pp. 145-57	
		SHNAYERSON, M, "The killer bug", <u>Fortune (Industrial Edition)</u> , 146(6), (2002), pp. 149-156	
		SIMON, P. M., et al., "Inhibition of Helicobacter pylori Binding to Gastrointestinal Epithelial Cells by Sialic Acid-Containing Oligosaccharides", <u>Infection and Immunity</u> , 65 (2), (February, 1997), pp. 750-757	
		VARKI, A, "Biological roles of oligosaccharides: all of the theories are correct", <u>Glycobiology</u> , 3(2), (April 1993), pp. 97-130	
		WALSH, C, "Molecular mechanisms that confer antibacterial drug resistance", <u>Nature</u> , 406(6797), (August 17, 2000), pp. 775-81	
		YOSHIZUMI, AKIRA, et al., "Self-Assembled Monolayer of Sugar-Carrying Polymer Chain: Sugar Balls from 2-Methacryloyloxyethyl D-Glucopyranoside", <u>Langmuir</u> , 15(2), (January 19, 1999), pp. 482-488	
		ZOPF, D, et al., "Oligosaccharide anti-infective agents", <u>Lancet</u> , 347(9007), (April 13, 1996), pp. 1017-21	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached